

Remarks

Reconsideration of this Application is respectfully requested. Claims 1-24 are pending in the application, with claims 1, 8, 9, 16, 17 and 24 being the independent claims. Based on the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding rejections, and that they be withdrawn.

Rejections Under 35 U.S.C. § 103

The Examiner rejected independent claims 1, 8, 9, 16, 17 and 24 under 35 U.S.C. § 103(a) as being unpatentable over a printed tutorial describing "Interactive Physics 2000" software ("IP2000 software"), in view of U.S. Patent No. 5,604,848 to Harada et al. ("Harada").

Independent Claims 1, 9 and 17

According to the Examiner, the IP2000 software discloses the creation of a plurality of behavioral assemblies, and storing them in a library. The Examiner asserts that Harada teaches "selecting one of said plurality of behavioral assemblies from said library during execution of the simulation, wherein said selected one of said plurality of behavioral assemblies provides a physics-based eye-point model for user navigation in the simulation." (Office Action, pp. 2-3.) The Examiner then asserted that "it would have been obvious to an artisan at the time of the invention to combine the method of IP[2000 software] with the teaching of Harada." (*Id.* at p. 3.) In support, the Examiner stated that "[m]otivation to do so would have been to provide a viewpoint to the user to conform with the conditions of an atmosphere." (*Id.*)

For at least two reasons, Applicant respectfully asserts that the Examiner has not established a *prima facie* case of obviousness. First, the Examiner has not established a

motivation to combine the cited references. Second, the cited references do not teach or suggest all the claim limitations.

1. There is no Motivation to Combine the References

To make a *prima facie* case of obviousness, the Examiner must establish a suggestion or motivation to combine the reference teachings. (MPEP § 2142.) "When the motivation to combine the teachings of the references is not immediately apparent, it is the duty of the examiner to explain why the combination of the teachings is proper." (*Id.* citing *Ex parte Skinner*, 2 USPQ2d 1788 (BPAI 1986).) It is important that the motivation to combine references be established with objective evidence and specific factual findings with respect to the references. (*Id.* § 2143.01; citing *In re Lee*, 277 F.3d 1338, 1342-44 (Fed. Cir. 2002).) Applicant finds no such evidence, and the Examiner has not met the above established burden.

Applicant cannot find any express or implied motivation to combine the cited references. Harada does not suggest or teach a need for, or the desirability of, constructing behavioral assemblies from a predefined set of physical elements, as contemplated in the present invention. As explained more fully below, Harada does not construct behavioral assemblies, nor is the information in the databases of Harada organized or stored as behavioral assemblies. Indeed, use of behavioral assemblies would alter the principle of operation of Harada, which relies primarily on a "field of view conversion matrix" to account for the influence of physical forces on a model to be drawn in a scene. (Harada, 6:61-63, 7:8-12 and 7:54-67.) The Examiner has also not asserted that the IP2000 software in any way suggests or teaches that it may be used to facilitate interactive navigation control in virtual environments.

The Examiner's stated rationale for the alleged motivation to combine the references is insufficient. The Examiner's single sentence supporting the motivation to combine is simply a restatement of the goal of any generic interactive 3D virtual environment programmer. The Examiner makes no factual findings with respect to the references; nor does the Examiner even cite to the references. Applicant respectfully asserts that the Examiner's single conclusory statement is insufficient to establish a *prima facie* motivation to combine, and is the result of impermissible hindsight.

2. The Cited References do not Teach or Suggest All the Claim Limitations.

To make a *prima facie* case of obviousness, the cited references must also teach or suggest all the claim limitations. (MPEP § 2142.) The cited references fail in this regard.

Specifically, the Examiner asserts that the claim 1 limitation of "selecting one of said plurality of behavioral assemblies from said library during execution of the simulation, wherein said selected one of said plurality of behavioral assemblies provides a physics-based eye-point model for user navigation in the simulation" is taught by Harada at column 4, lines 30-40. (Office Action, p. 3.) Applicant respectfully disagrees. The cited section merely describes figures 11A and 11B of Harada. These figures illustrate that, as a moving vehicle enters a turn, external forces (e.g., centrifugal force, gravity, reactive force) act upon it, and cause a viewpoint set on the vehicle to "slant." (Harada, 4:29-40.) Applicant fails to understand how this rather unremarkable and well known proposition teaches or suggests selecting a "behavioral assembly" that "provides a physics-based eyepoint model for user navigation" in a simulation.

The Examiner appears to suggest that, simply because the data in the "model information database" contains "movement information of the model" (Harada, 6:41-43), the data therein automatically constitutes a physics-based behavioral assembly as contemplated by the present invention. Such an analogy is not proper. The "model information database" of Harada is more properly analogized to the visual database 104 in the present application, which "stores the properties of all the objects and animations that make up the virtual world." (Application, p. 9, ¶ 34.) Nowhere does Harada teach or suggest "selecting one of said plurality of behavioral assemblies from said library during execution of the simulation, wherein said selected one of said plurality of behavioral assemblies provides a physics-based eye-point model for user navigation in the simulation," as recited in claim 1.

Nor does this limitation appear in the IP2000 software. As stated above, the IP2000 software does not teach or suggest use of created simulations to facilitate interactive navigation control in virtual environments. Thus, the IP2000 software also does not teach or suggest the claim 1 limitation of "selecting one of said plurality of behavioral assemblies from said library during execution of the simulation, wherein said selected one of said plurality of behavioral assemblies provides a physics-based eye-point model for user navigation in the simulation."

3. Summary

For at least the foregoing reasons, the Examiner has failed to establish a *prima facie* case of obviousness. Generally, there is no explicit or implied motivation to combine the IP2000 software and the Harada references. The Examiner's conclusory statement to the contrary is insufficient as a matter of law. Furthermore, the combined references do not teach or disclose each limitation of claim 1. Applicant therefore

respectfully requests that the rejection of independent claim 1 be reconsidered and withdrawn. Because dependent claims 2-7 depend from claim 1, Applicant also requests that the rejection of these dependent claims be reconsidered and withdrawn.

The Examiner rejected independent claim 9 "under similar rationale" as claim 1. (Office Action, p. 5.) Independent claim 9 recites at least the selection of "one of said plurality of behavioral assemblies from said library . . . , wherein said selected one of said plurality of behavioral assemblies provides a physics model for interactive navigation in the simulation." For at least the same reasons noted above with respect to claim 1, this limitation is not present in Harada, or in the IP2000 software. Applicant therefore respectfully requests that the rejection of independent claim 9 be reconsidered and withdrawn. Because dependent claims 10-15 depend from independent claim 9, Applicant requests that their rejection likewise be reconsidered and withdrawn.

The Examiner also rejected independent claim 17 "under similar rationale" as claim 1. (Office Action, p. 5.) Independent claim 17 recites at least a means for selecting "one of said plurality of behavioral assemblies from said library during execution of the simulation, wherein said selected one of said plurality of behavioral assemblies provides a physics-based eye-point model for user navigation in the simulation." For at least the same reasons noted above with respect to claim 1, this limitation is not present in Harada, or in the IP2000 software. Applicant therefore respectfully requests that the rejection of independent claim 17 be reconsidered and withdrawn. Because dependent claims 18-23 depend from independent claim 17, Applicant requests that their rejection likewise be reconsidered and withdrawn.

Independent Claims 8, 16 and 24

The Examiner also rejected independent claim 8 as obvious over the IP2000 software, in view of Harada. (Office Action, p. 4-5.) At the outset, Applicant's claim 1 assertions with respect to the lack of motivation to combine the IP2000 software and the Harada references remain equally valid with respect to independent claim 8, and are reasserted here.

Furthermore, the combined references do not teach all the features of independent claim 8. Independent claim 8 recites the step of "selecting one of said plurality of behavioral assemblies from said library to perform one of said plurality of tasks, wherein said selected one of said plurality of behavioral assemblies provides a physics-based eye-point model for user navigation during performance of said one of said plurality of tasks." This limitation requires at a minimum the selection of a "behavioral assembly" that "provides a physics-based eye-point model for user navigation," which is also recited in independent claim 1. Additionally, the Examiner found this limitation to be present in Harada using the identical rationale presented in claim 1--i.e., both of these limitations are allegedly present in Harada at column 4, lines 30-40. (Compare Office Action, p. 3 with p. 8.) Applicant's claim 1 assertions regarding the absence of this limitation in both Harada and the IP2000 software are, therefore, equally applicable to claim 8, and are reasserted here.

For at least the foregoing reasons, and in view of the above discussion regarding claim 1, the Examiner has not established a *prima facie* case of obviousness for independent claim 8. Specifically, there is no motivation to combine the references, and the combined references do not teach every feature of claim 8. Applicant therefore

respectfully requests that the Examiner reconsider and withdraw the rejection of independent claim 8.

The examiner rejected independent claim 16 "under similar rationale" as claim 8. (Office Action, p. 6.) Claim 16 recites at least the selection of "one of said plurality of behavioral assemblies from said library . . . , wherein said selected one of said plurality of behavioral assemblies provides a physics-based eye-point model for user navigation. . . ." At least this feature is present in both claims 1 and 8, and, as explained above, is not present in either Harada or the IP2000 software. Therefore, for at least the same reasons noted above with respect to independent claims 1 and 8, Applicant respectfully requests that the rejection of independent claim 16 be reconsidered and withdrawn.

Finally, the Examiner rejected independent claim 24 "under the same rationale" as claim 8. (Office Action, p. 6.) Claim 24 recites at least a means for selecting "one of said plurality of behavioral assemblies from said library . . . , wherein said selected one of said plurality of behavioral assemblies provides a physics-based eye-point model for user navigation" At least this feature is present in both claims 1 and 8, and, as explained above, is not present in either Harada or the IP2000 software. Therefore, for at least the same reasons noted above with respect to independent claims 1 and 8, Applicant respectfully requests that the rejection of independent claim 24 be reconsidered and withdrawn.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding rejections. and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Reply is respectfully requested.

Respectfully submitted,

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